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Occupational Employment and Wages in Youngstown-Warren-Boardman — May 2015

Workers in the Youngstown-Warren-Boardman Metropolitan Statistical Area had an average (mean) hourly wage of \$18.77 in May 2015, about 19 percent below the nationwide average of \$23.23, according to the U.S. Bureau of Labor Statistics. Assistant Commissioner for Regional Operations Charlene Peiffer noted that, after testing for statistical significance, wages in the local area were lower than their respective national averages in 18 of the 22 major occupational groups including legal; management; and computer and mathematical.

When compared to the nationwide distribution, local employment was more highly concentrated in 5 of the 22 occupational groups, including production; sales and related; and food preparation and serving related. Conversely, 11 groups had employment shares significantly below their national representation, including business and financial operations; computer and mathematical; and office and administrative support. (See [table A](#) and [box note](#) at end of release.)

Table A. Occupational employment and wages by major occupational group, United States and the Youngstown-Warren-Boardman Metropolitan Statistical Area, and measures of statistical significance, May 2015

Major occupational group	Percent of total employment		Mean hourly wage		
	United States	Youngstown	United States	Youngstown	Percent difference ⁽¹⁾
Total, all occupations.....	100.0%	100.0%	\$23.23	\$18.77*	-19
Management.....	5.0	3.6*	55.30	43.27*	-22
Business and Financial Operations.....	5.1	3.0*	35.48	27.86*	-21
Computer and Mathematical.....	2.9	0.8*	41.43	29.51*	-29
Architecture and Engineering.....	1.8	1.1*	39.89	33.02*	-17
Life, Physical, and Social Science.....	0.8	0.2*	34.24	28.36*	-17
Community and Social Services.....	1.4	1.8*	22.19	18.84*	-15
Legal.....	0.8	0.4*	49.74	32.23*	-35
Education, Training, and Library.....	6.2	5.7	25.48	24.47	-4
Arts, Design, Entertainment, Sports, and Media.....	1.3	0.7*	27.39	18.58*	-32
Healthcare Practitioner and Technical.....	5.8	6.5	37.40	33.60*	-10
Healthcare Support.....	2.9	4.2*	14.19	12.92*	-9
Protective Service.....	2.4	2.6	21.45	18.65*	-13
Food Preparation and Serving Related.....	9.1	11.1*	10.98	9.72*	-11
Building and Grounds Cleaning and Maintenance.....	3.2	2.9	13.02	11.69*	-10
Personal Care and Service.....	3.1	2.6*	12.33	11.14*	-10
Sales and Related.....	10.5	12.6*	18.90	14.94*	-21
Office and Administrative Support.....	15.8	14.4*	17.47	15.15*	-13

Table A. Occupational employment and wages by major occupational group, United States and the Youngstown-Warren-Boardman Metropolitan Statistical Area, and measures of statistical significance, May 2015 - Continued

Major occupational group	Percent of total employment		Mean hourly wage		
	United States	Youngstown	United States	Youngstown	Percent difference ⁽¹⁾
Farming, Fishing, and Forestry.....	0.3	(2) *	12.67	18.01*	42
Construction and Extraction.....	4.0	3.6*	22.88	22.39	-2
Installation, Maintenance, and Repair.....	3.9	4.0	22.11	20.14*	-9
Production.....	6.6	10.4*	17.41	18.31	5
Transportation and Material Moving.....	6.9	7.7	16.90	15.66*	-7

⁽¹⁾ A positive percent difference measures how much the mean wage in Youngstown is above the national mean wage, while a negative difference reflects a lower wage.

⁽²⁾ Indicates a value of less than 0.05 percent

* The percent share of employment or mean hourly wage for this area is significantly different from the national average of all areas at the 90-percent confidence level.

One occupational group—production—was chosen to illustrate the diversity of data available for any of the 22 major occupational categories. Youngstown-Warren-Boardman had 22,810 jobs in production, accounting for 10.4 percent of local area employment, significantly higher than the 6.6-percent share nationally. The average hourly wage for this occupational group locally was \$18.31, compared to the national wage of \$17.41.

Some of the larger detailed occupations within the production group included team assemblers (4,750); cutting, punching, and press machine setters, operators, and tenders, metal and plastic (1,460); and first-line supervisors of production and operating workers (1,400). Among the higher paying jobs were power distributors and dispatchers; and first-line supervisors of production and operating workers, with mean hourly wages of \$31.87 and \$27.77, respectively. At the lower end of the wage scale were laundry and dry-cleaning workers (\$9.62) and pressers, textile, garment, and related materials (\$10.26). (Detailed occupational data for production are presented in [table 1](#); for a complete listing of detailed occupations available go to www.bls.gov/oes/2015/may/oes_49660.htm.)

Location quotients allow us to explore the occupational make-up of a metropolitan area by comparing the composition of jobs in an area relative to the national average. (See [table 1](#).) For example, a location quotient of 2.0 indicates that an occupation accounts for twice the share of employment in the area than it does nationally. In the Youngstown-Warren-Boardman Metropolitan Statistical Area, above-average concentrations of employment were found in many of the occupations within the production group. For instance, rolling machine setters, operators, and tenders, metal and plastic were employed at 9.5 times the national rate in Youngstown, and heat treating equipment setters, operators, and tenders, metal and plastic, at 6.1 times the U.S. average. On the other hand, electrical and electronic equipment assemblers had a location quotient of 1.0 in Youngstown, indicating that this particular occupation's local and national employment shares were similar.

These statistics are from the Occupational Employment Statistics (OES) survey, a federal-state cooperative program between BLS and State Workforce Agencies, in this case, the Ohio Department of Job & Family Services and the Pennsylvania Department of Labor and Industry.

Notes on Occupational Employment Statistics Data

With the issuance of data for May 2015, the OES program has incorporated redefined metropolitan area definitions as designated by the Office of Management and Budget. OES data are available for 394 metropolitan areas, 38 metropolitan divisions, and 167 OES-defined nonmetropolitan areas. A listing of the areas and their definitions can be found at www.bls.gov/oes/current/msa_def.htm.

A value that is statistically different from another does not necessarily mean that the difference has economic or practical significance. Statistical significance is concerned with the ability to make confident statements about a universe based on a sample. It is entirely possible that a large difference between two values is not significantly different statistically, while a small difference is, since both the size and heterogeneity of the sample affect the relative error of the data being tested.

Technical Note

The Occupational Employment Statistics (OES) survey is a semiannual mail survey measuring occupational employment and wage rates for wage and salary workers in nonfarm establishments in the United States. The OES program produces employment and wage estimates for over 800 occupations for all industries combined in the nation; the 50 states and the District of Columbia; 432 metropolitan areas and divisions; 167 nonmetropolitan areas; and Guam, Puerto Rico, and the U.S. Virgin Islands. National estimates are also available by industry for NAICS sectors, 3-, 4-, and selected 5- and 6-digit industries, and by ownership across all industries and for schools and hospitals. OES data are available at www.bls.gov/oes/tables.htm.

OES estimates are constructed from a sample of about 1.2 million establishments. Forms are mailed to approximately 200,000 sampled establishments in May and November each year. May 2015 estimates are based on responses from six semiannual panels collected over a 3-year period: May 2015, November 2014, May 2014, November 2013, May 2013, and November 2012. The overall national response rate for the six panels is 73.5 percent based on establishments and 69.6 percent based on weighted sampled employment. The unweighted employment of sampled establishments across all six semiannual panels represents approximately 57.9 percent of total national employment. (Response rates are slightly lower for these estimates due to the federal shutdown in October 2013.) The sample in the Youngstown-Warren-Boardman Metropolitan Statistical Area included 2,913 establishments with a response rate of 75 percent. For more information about OES concepts and methodology, go to www.bls.gov/news.release/ocwage.tn.htm.

The May 2015 OES estimates are based on the 2010 Standard Occupational Classification (SOC) system and the 2012 North American Industry Classification System (NAICS). Information about the 2010 SOC is available on the BLS website at www.bls.gov/soc and information about the 2012 NAICS is available at www.bls.gov/bls/naics.htm.

Metropolitan area definitions

The substate area data published in this release reflect the standards and definitions established by the U.S. Office of Management and Budget.

The **Youngstown-Warren-Boardman, Ohio-Penn. Metropolitan Statistical Area** includes Mahoning and

Trumbull Counties of Ohio, and Mercer County of Pennsylvania.

Additional information

OES data are available on our regional web page at www.bls.gov/regions/midwest. Answers to frequently asked questions about the OES data are available at www.bls.gov/oes/oes_ques.htm. Detailed technical information about the OES survey is available in our Survey Methods and Reliability Statement on the BLS website at www.bls.gov/oes/2015/may/methods_statement.pdf.

Information in this release will be made available to sensory impaired individuals upon request . Voice phone: 202-691-5200; Federal Relay Service: 800-877-8339.

Table 1. Employment and wage data from the Occupational Employment Statistics survey, by occupation, Youngstown-Warren-Boardman Metropolitan Statistical Area, May 2015

Occupation ⁽¹⁾	Employment		Mean wages	
	Level ⁽²⁾	Location quotient ⁽³⁾	Hourly	Annual ⁽⁴⁾
Production Occupations.....	22,810	1.6	\$18.31	\$38,080
First-Line Supervisors of Production and Operating Workers.....	1,400	1.5	27.77	57,760
Coil Winders, Tapers, and Finishers.....	(5)	(5)	13.48	28,030
Electrical and Electronic Equipment Assemblers.....	350	1.0	14.89	30,960
Electromechanical Equipment Assemblers.....	170	2.4	17.05	35,460
Engine and Other Machine Assemblers.....	80	1.3	17.36	36,100
Structural Metal Fabricators and Fitters.....	300	2.4	21.65	45,020
Team Assemblers.....	4,750	2.7	(5)	(5)
Assemblers and Fabricators, All Other.....	820	2.3	13.18	27,410
Bakers.....	540	1.9	11.03	22,940
Butchers and Meat Cutters.....	250	1.1	15.06	31,330
Food Batchmakers.....	90	0.5	14.52	30,190
Computer-Controlled Machine Tool Operators, Metal and Plastic.....	320	1.4	17.45	36,300
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic.....	40	1.0	20.77	43,210
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic.....	430	3.8	16.73	34,800
Forging Machine Setters, Operators, and Tenders, Metal and Plastic....	(5)	(5)	17.83	37,090
Rolling Machine Setters, Operators, and Tenders, Metal and Plastic.....	480	9.5	19.87	41,320
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic.....	1,460	4.7	15.88	33,020
Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic.....	80	3.4	19.20	39,930
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic.....	280	2.4	17.52	36,440
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic.....	190	2.9	16.48	34,290
Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic.....	90	2.9	19.51	40,580
Machinists.....	1,030	1.6	18.79	39,090
Metal-Refining Furnace Operators and Tenders.....	130	4.1	19.32	40,180
Pourers and Casters, Metal.....	90	5.6	15.66	32,570
Foundry Mold and Coremakers.....	80	3.7	17.73	36,880
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic.....	250	1.2	17.63	36,670
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic.....	430	2.6	16.86	35,080
Tool and Die Makers.....	450	3.8	23.60	49,080
Welders, Cutters, Solderers, and Brazers.....	880	1.4	16.58	34,480
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders.....	(5)	(5)	16.09	33,470
Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic.....	200	6.1	19.67	40,910
Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic.....	170	3.0	15.69	32,630
Tool Grinders, Filers, and Sharpeners.....	30	2.1	14.82	30,830
Metal Workers and Plastic Workers, All Other.....	80	2.4	18.29	38,040
Prepress Technicians and Workers.....	70	1.3	17.53	36,460
Printing Press Operators.....	170	0.7	15.88	33,020
Laundry and Dry-Cleaning Workers.....	(5)	(5)	9.62	20,010
Pressers, Textile, Garment, and Related Materials.....	60	0.8	10.26	21,350
Sewing Machine Operators.....	260	1.2	11.79	24,520
Upholsterers.....	(5)	(5)	14.66	30,500
Cabinetmakers and Bench Carpenters.....	150	1.0	18.13	37,710

Table 1. Employment and wage data from the Occupational Employment Statistics survey, by occupation, Youngstown-Warren-Boardman Metropolitan Statistical Area, May 2015 - Continued

Occupation ⁽¹⁾	Employment		Mean wages	
	Level ⁽²⁾	Location quotient ⁽³⁾	Hourly	Annual ⁽⁴⁾
Furniture Finishers.....	40	1.5	15.69	32,640
Sawing Machine Setters, Operators, and Tenders, Wood.....	110	1.4	11.52	23,970
Woodworking Machine Setters, Operators, and Tenders, Except Sawing.....	140	1.2	12.28	25,550
Power Distributors and Dispatchers.....	40	2.1	31.87	66,280
Stationary Engineers and Boiler Operators.....	70	1.3	22.57	46,950
Water and Wastewater Treatment Plant and System Operators.....	350	1.9	22.47	46,730
Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders.....	40	0.5	16.39	34,090
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders.....	80	1.7	14.32	29,780
Grinding and Polishing Workers, Hand.....	130	3.0	14.15	29,430
Mixing and Blending Machine Setters, Operators, and Tenders.....	90	0.4	18.78	39,070
Cutting and Slicing Machine Setters, Operators, and Tenders.....	30	0.3	15.49	32,230
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders.....	160	1.4	14.72	30,620
Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders.....	60	1.8	16.52	34,360
Inspectors, Testers, Sorters, Samplers, and Weighers.....	1,030	1.3	19.05	39,620
Jewelers and Precious Stone and Metal Workers.....	30	0.8	17.32	36,030
Ophthalmic Laboratory Technicians.....	(5)	(5)	12.54	26,090
Packaging and Filling Machine Operators and Tenders.....	840	1.4	15.80	32,860
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders.....	190	1.3	14.51	30,180
Painters, Transportation Equipment.....	60	0.7	20.50	42,630
Painting, Coating, and Decorating Workers.....	(5)	(5)	11.97	24,900
Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders.....	30	1.2	17.17	35,720
Molders, Shapers, and Casters, Except Metal and Plastic.....	70	1.2	14.84	30,870
Helpers--Production Workers.....	730	1.0	12.85	26,730
Production Workers, All Other.....	420	1.1	13.33	27,740

⁽¹⁾ For a complete listing of all detailed occupations in the Youngstown-Warren-Boardman Metropolitan Statistical Area, see www.bls.gov/oes/current/oes_43600.htm

⁽²⁾ Estimates for detailed occupations do not sum to the totals because the totals include occupations not shown separately. Estimates do not include self-employed workers.

⁽³⁾ The location quotient is the ratio of the area concentration of occupational employment to the national average concentration. A location quotient greater than one indicates the occupation has a higher share of employment than average, and a location quotient less than one indicates the occupation is less prevalent in the area than average.

⁽⁴⁾ Annual wages have been calculated by multiplying the hourly mean wage by a 'year-round, full-time' hours figure of 2,080 hours; for those occupations where there is not an hourly mean wage published, the annual wage has been directly calculated from the reported survey data.

⁽⁵⁾ Estimates not released.